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During FY 87 medical readiness programs at Tripler Army Medical Center consumed a total of 58,444.5 man-hours (29 FTEs) and $15,639 of Operations and Maintenance, Army (OMA) funds in direct cost. Readiness planning and administrative activities consumed 15,111 man-hours ($2,902), readiness exercises consumed 3197.5 man-hours ($8,311), readiness training consumed 24,281 man-hours ($3200), personnel deployments consumed 4968 man-hours, logistics readiness consumed 7600 man-hours, and physical training 3287 man-hours. Additionally, physical personnel deployment cost TAMC 433 potential outpatient appointments or 130 medical care composite units (MCCUs) during Fiscal Year 1987. This resulted in a loss of $20,409 in potential supply dollar reimbursements.

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Physical Training, Skill Qualification Test, Common Task Test.

A Study To Determine the Impact of Medical Readiness Programs on Fiscal Year 1987 Resource Utilization at Tripler Army Medical Center

A Graduate Research Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Care Administration

By

Major Richard G. McAdam, MS

October 1988

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I am eternally indebted to my loving wife, Patricia, who continually encouraged me to complete this task and slaved over the manuscript to ensure my ideas were expressed in English.

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Chapter I - Introduction

The primary mission of the United States Army Medical Department is to support the readiness posture of the U.S. Army by insuring the health of soldiers. Its motto, "to conserve the fighting strength", exemplifies that commitment. Resources for the Army Medical Department are allocated by the U.S. Congress based on the need to provide medical care for those in uniform.

As a secondary mission, the Army Medical Department must insure medical readiness: "the capability to support the operating forces in conventional conflicts specified in the Defense Guidance".[1] Pre-positioned medical units; rapidly deployable medical facilities; stockpiles of critical supplies; adequate evacuation capabilities; access to the nation's hospitals; trained manpower; and effective plans for their mobilization, deployment, and wartime operations are the basic determinants of medical readiness.[2] Within its peacetime role, Tripler Army Medical Center (TAMC) is directly involved in training medical manpower, developing effective mobilization plans for that manpower, insuring access to local hospitals during wartime, and managing stockpiles of critical medical supplies.

Because the wartime environment is so different from the day-to-day Tripler work setting, special programs must be established to insure that physicians, nursing personnel, ancillary support staff, and administrative personnel attain and maintain proficiency in wartime skills. There is a wide variety of training programs, including individual proficiency testing, special continuing medical education programs, field training exercises, and the deployment of individuals to support training

exercises of other units. They have been developed to insure that medical personnel are prepared for their wartime role and are able to survive in the combat environment.

To meet the medical readiness requirements for mobilization planning, committees have been established to insure adequate plans are developed for the expansion of the Medical Center to meet its wartime mission. To support hospital wartime expansion, critical items of equipment and supplies are stored by the Tripler Army Medical Center Materiel Branch to support wartime operational requirements.

Historically, the manpower and financial resources required to provide and participate in these medical readiness programs have been taken from those resources allocated for the primary mission, patient care, without a clear accounting for their use. In recent years, the U.S. Congress has insisted on greater accountability of both financial and manpower resources within Army Medical Department hospitals. This has resulted in a need to perform much more detailed expense accounting to track resource expenditures.

Medical Expense and Performance Reporting System

In 1974 and again in 1976, the House Armed Services Committee recommended that uniform standards for determining medical manpower requirements be developed by the Department of Defense. They felt it was necessary to unify the Uniformed Services methodology for allocating manpower resources so that they could make comparisons between the Services.

In response, the Assistant Secretary of Defense for Health Affairs developed a working group in 1978 to examine, refine, and improve the Air Force system of programming medical manpower requirements. The working group was charged with the task of developing a uniform, scientifically derived methodology for determining, budgeting, defending, and allocating basic personnel requirements.[3] This methodology focussed on those resources utilized in delivering patient care or the support necessary to deliver patient care. They did not address the training requirements associated with insuring medical readiness of personnel assigned to the Army Medical Treatment Facilities.

In 1986, a Medical Readiness Subcommittee of the Tri-service Performance Measurement Working Group was formed to identify appropriate medical readiness activities that should be accounted for in the Medical Expense and Performance Reporting System.[4] The Sub-committee identified six categories of medical readiness activities: readiness planning and administration, readiness exercises, readiness training, unit or personnel deployments, readiness logistics management, and readiness physical training.[5] The U.S. Army Health Services Command initiated reporting requirements for medical readiness activities on October 1, 1986.

Measuring Performance with Diagnostically-Related Groupings

Within the Army Medical Department, the medical care composite unit (MCCU) is the historical method of productivity measurement.[6] It measures medical treatment facility workload by measuring and weighing the number of admissions, live births,

occupied bed days, and outpatient visits accomplished per day. Financial resources have been allocated to Army medical treatment facilities based on the number of MCCUs accomplished since the 1950's. This system is insensitive to current workload trends and does not differentiate between fluctuation in patient care cost resulting from the difference in the types of cases the hospital treats.

Only the Army Medical Department uses an MCCU based allocation system. The Air Force and Navy Medical Departments each have their own resource allocation model, which makes it extremely difficult to compare hospital productivity between the Uniformed Services. In an era of greater concern over Department of Defense spending and the proliferation of prospective payment methodology by the Department of Health and Human Services, the U.S. Congress is insisting that the Department of Defense adopt a new, department-wide resource allocation methodology.

The National Defense Authorization Act for Fiscal Year (FY) 1987 (S.2638) directed the Secretary of Defense to establish by regulation the use of diagnosis-related groups (DRGs) as the primary criterion for allocation of resources to Uniform Services medical treatment facilities. The U.S. Congress established a May 1, 1987 suspense for the Secretary of Defense to report on plans for establishing the DRG based resource allocation system for inpatient services and a May 1, 1988 suspense for an analogous system for outpatient care reimbursement.

This law recognized an exception for those resources required for medical readiness activities. Future resources for medical readiness will be allocated by some method not directly related to DRGs. The Services will use the six readiness accounts established in the Medical Expense and Performance Reporting System to separate resources used for patient care from resources consumed for medical readiness mission requirements.

Beginning in October 1986, the U.S. Army Health Services Command implemented the requirement to report man-hours and dollars expended to support medical readiness activities using appropriate Medical Expense and Performance Reporting System accounts. With the spector of a new resource allocation model only a year away, collecting timely and accurate resource expenditures for medical readiness programs should have taken on a new level of significance during FY 1987. However, Tripler Army Medical Center did not implement the Medical Expense and Performance Reporting System until March 28, 1988. Because of a lack of computer system support, a very limited manual data collection methodology was established for collecting resources used in medical readiness activities prior to that time. This resulted in very limited reporting of medical readiness resource consumption data during FY 1987.

Need for This Study

There are two reasons for conducting this study. The first is to validate the data reported in the Medical Expense and Performance Report for FY 1987. The second reason is to provide a

developmental framework for future operating budget recommendations.

From discussions with members of several departments, divisions, and separate services at Tripler Army Medical Center, it is apparent that there are significant resources committed to teaching wartime skills, writing mobilization plans, coordinating wartime support, managing wartime mobilization stockpiles of supplies and equipment, meeting contingency mission requirements, and supporting the 25th Infantry Division (Light). The medical readiness programs either do not produce MCCUs or else they generate MCCUs at a far lower rate than would be normally expected. In fact, medical readiness programs require a two-fold expenditure in resources. There is the actual resource consumption within the readiness activity and "opportunity lost" MCCUs due to non-availability of staff to provide patient care.

This year Tripler has experienced a reduction in funding resulting from the Department of Defense budget reduction. It is anticipated that this trend will continue for several years, while the President and U.S. Congress grapple with the National Budget deficit. During this period of budget constraints, establishing a medical readiness expenditure rate based on FY 1987 programs, will provide important historical information. This information would be used to establish and justify future budgetary needs for medical readiness activities. It can also serve as a basis of comparison between the programs at Tripler and those at other Army medical treatment facilities.

Problem Statement

The purpose of this study is to determine the impact of medical readiness programs on Fiscal Year 1987 resource utilization at Tripler Army Medical Center.

Factor Influencing Research Method

There was no established audit trail for the resources expended on medical readiness activities. Many of the medical readiness training programs are not required for licensure or the Joint Commission on Hospital Accreditation and therefore no formal records were maintained during FY 1987. In performing a retrospective review of these programs it was necessary, where records did not exist, to accept the best estimate of individuals who directed or participated in the training.

Literature Review

Medical Readiness Activities

A review of the literature failed to reveal any published information directly relating to the cost of military medical readiness training programs. Further, discussions with Lieutenant Colonel John A. Coventry, the Chief of the Health Care Studies Division at the U.S. Army Health Services Command Health Care Studies and Clinical Investigation Activity, revealed no unpublished information concerning the subject area.

Cost Study Methodology

There are many parallels between assessing the cost of medical education and the cost of medical readiness. During an earlier era of plentiful resources, there was little concern for

definitively justifying resource requirements to support medical education programs. State agencies and individual institutions were satisfied with using historical unit cost data as a basis for developing operating budget recommendations. As resources became more difficult to obtain, a need developed to more discretely identify the cost of resources to produce an educated student. The traditionally recognized cost components of an education program are: faculty salaries, support personnel, non-salary departmental operating expense, instructional equipment, library operations, plant operation and maintenance, student services, general institutional expenses, and student aid.[7]

Lost Productivity in Training Programs

There have been numerous studies concerning the measurement of decreased productivity resultant from the graduate medical education process. Kahn, Wirth, and Perkoff established in a 1974 time-motion study of internists and a 1975 time-motion study of pediatricians at the Medical Care Group of Washington University that, although there was a significant loss in the productivity of the faculty physicians due to teaching efforts, it was more than compensated for by the productivity of the residents.[8]

Personnel Availability Factors

A major study of the activities of civilian medical residents, conducted by the Institute of Medicine, showed that regardless of specialty, level, or hospital, the relative mix of an average 60-hour work week did not differ significantly. Learning demanded 15 percent of their time; teaching, 15 percent;

patient care, 60 percent; research and other activities, 10 percent.[9]

Anticipated availability factors for soldiers were published by the Army as a reference point for managers in the management of employees' time. Excluding the federal holidays, there are an average of 167.25 work hours per month. Non-available time resulted from leave (8.28 hours per month); medical (3.61 hours); training (4.31 hours); organizational duties (3.99 hours); permanent change of station activities (1.26 hours); and miscellaneous (0.80 hours). The training hours included personal development programs, refresher training programs, and physical fitness testing.[10]

Research Methodology

Assessment of the Tripler Medical Readiness Activities

The first step in the assessment process involved reviewing the training files within the Operations and Training Branch of the Plans, Operations, Training and Security (POTS) Division to get an overview of the type of medical readiness activities ongoing at Tripler. The files contained records of the mobilization planning activities, U.S Army Reserve training, Professional Filler System (PROFIS) training, Tripler personnel support requirements for exercises, and Expert Field Medical Badge (EFMB) training and testing.

The next step was determining what medical readiness activities had been reported in the Medical Expense and Performance Report during the first two quarters of FY 1987. The Cost Analyst

responsible for preparing the Medical Expense and Performance Report was interviewed concerning the use of the medical readiness activity accounts at Tripler Army Medical Center.[11] She provided a description of the Tripler methodology for implementing U.S. Army Health Services Command Guidance concerning these accounts and a copy of the data forwarded in the Medical Expense and Performance Report.

During the next four months individuals actively involved in medical readiness activities throughout Tripler were contacted to discuss the medical readiness involvement within their department, division, or separate service. Through these interviews an informal inventory of medical readiness activities was identified and questions concerning medical readiness programs were developed.

Prior to beginning the formal data collection process, a detailed inventory of all medical readiness activities was taken. Each department, division, and separate service within the Medical Center was provided examples of medical readiness programs (Appendix A) and tasked with providing an itemized list of their medical readiness activities. Their responses were used to verify all the different types of medical readiness activities ongoing within TAMC and to schedule personal or telephonic interviews.

A questionnaire was developed for use during this interview (Appendix B) to specifically assess the resources expended in Skill Qualification and Common Task training and testing, the

Army Physical Fitness Test, Tripler field training exercises, professional filler personnel training, and mobilization planning.

During scheduled Administrative Residency visits with TAMC organizational elements, medical readiness issues were discussed. These discussions served to validate medical readiness inventory previously collected. Additional medical readiness activities that were not considered during the questionnaire process were identified.

After completing the list of activities, they were divided according to the six medical readiness categories (Appendix A) and a method for collecting data was determined for each activity.

Readiness Planning and Administration

There were two principal mobilization planning activities identified: the writing of the Tripler Mobilization Plan and the development of the Mobilization Table of Distribution and Allowances to enhance U.S. Army Reserve Forces integration at Tripler. The Plans Officer provided an estimate of the time required to write the Mobilization Plan, including the time spent by the Chiefs of the Materiel Branch, Military Personnel Office, and Blood Bank. Mobilization Planning Committee members identified time spent reviewing the plan outside the meeting. The Committee Meeting Minutes record the time committee members spent in their meeting.

The Chief of the Force Development Branch provided an estimate of the man-hours consumed in preparing the Mobilization

Table of Distribution and Allowances for the establishment of the Tripler U.S. Army Reserve Hospital (Augmentation).

Mobilization administration activities were principally associated with the PROFIS program. Tripler physicians designated as professional fillers must draw their organizational clothing and individual equipment from the Central Issue Facility at Schofield Barracks. The Training Non-commissioned Officer assigned to the POTS Division estimated the amount of time required to complete this process. Furthermore, preparation for overseas rotation (POR) requires the administrative review of the officer's personnel and immunization records. This review was completed by the Tripler Military Personnel Branch. The Chief of the Military Personnel Branch provided an estimate of the time required to process professional filler personnel.

Readiness Exercises

The only readiness exercises conducted during FY 1987 were the deployments of the Tripler Emergency Medical Team to Johnson Island Atoll for training. A personal interview was conducted with the current Team Chief, the current Administrative Officer, the current Training Officer, and the Non-commissioned Officer-in-Charge. The Administrative Officer provided copies of the administrative records, which indicated the date and the names of the individuals deployed. The man-hours spent in exercise training were computed from the training exercise itinerary. The Non-commissioned Officer-in-Charge provided a record of the cost

of the supplies and equipment required to support the Emergency Medical Team Program.

Readiness Training

There were more programs in the readiness training category than any of the other five medical readiness categories studied. Medical Center personnel participated in thirteen different readiness training programs during the year.

First, almost every department, division, and separate service committed resources to the Individual Proficiency Program. This program includes the Skill Qualification and the Common Task Tests. Personal or telephonic interviews were used to quantify resources expended preparing soldiers for the tests. Where available, training records were collected. When records were not available, estimates of the man-hours and dollars expended were solicited.

The number of individuals who took the Skill Qualification Test was determined by reviewing records from U.S. Army Support Command-Hawaii Military Occupational Specialty (MOS) Testing Center at Fort Shafter. The Test Center receives a monthly report from the U.S. Army Training Support Center, Fort Eustis, Virginia, which reports the results for every test submitted for scoring. Individual test results were identified on the report by name, date of examination, and assigned unit. The total number of individuals tested was determined by counting the number of reported test scores.

The Plans, Operations, Training, and Security Division records provided the number of individuals who took the Common Task Test in FY 1987. The Training Non-commissioned Officer provided an estimate of the man-hours consumed preparing a written version of the Common Task Test and administering the test to Tripler personnel.

Secondly, the Department of Surgery conducts an Advanced Trauma Life Support Course (ATLS) for the Tripler Medical Staff. Records of training schedules, instructors, students, course fees, and supplies used were available in the departmental files. The number of man-hours required to provide the course was determined by using the training schedule and the student and instructor rosters. Only those students and instructors assigned to Tripler were considered as manpower resources expended. Instructors were credited with two hours of preparation time for every hour of classroom instruction presented. If instructors were required to present or supervise multiple blocks of instruction on the same material, they were only credited with preparing for the first block of instruction.

The cost of the ATLS Program included both contracts and supplies. The cost of instructor and student manuals, registration fees, and educational radiographs were identified in purchase requests in the file. The medical supplies required to conduct the training were identified in the ATLS Manual. Prices for these items were specified in the Tripler Army Medical Center Medical Supply Stockage List.

The Administrator for the Department of Surgery made all the logistical arrangements in preparation for the course. Because the Administrator had departed Tripler for another assignment, his secretary provided an estimate of the time he spent planning and coordinating the support for the course.

Thirdly, the Tripler Community Health Nursing Section holds a medical readiness training session on a monthly basis in conjunction with their administrative meeting. The subject of the session and those attending are recorded in the meeting minutes. The Assistant Chief of the Community Health Nursing Section estimated that these sessions averaged 30 minutes each. The monthly man-hours committed to this medical readiness activity was determined by multiplying the number of personnel who attended the training by the 30 minute class period. The program is usually focussed on the discussion of one or more journal articles and therefore the cost of the program is negligible.

Next, the POTS Division conducted the training and weapons qualification required for PROFIS personnel and maintained the records of the number of individuals trained.

The Department of Psychiatry and the Social Work Service participated jointly in a field training exercise during FY 1987 to provide medical readiness training for their personnel. The Chief of the Department of Psychiatry, the Chief of the Clinical Psychology Service, the Department Non-commissioned Officer-in-Charge, and other departmental personnel provided an estimate of the time spent planning the exercise. The Non-commissioned

Officer-in-Charge also provided the number of exercise participants, the number of support personnel required, the exercise time frame, and the cost of the exercise.

The Nursing Education and Staff Development Service conducts the Medical Proficiency Training Program designed to enhance the nursing skills of basic medics, military occupational specialty (MOS) 91A; emergency medical technicians, MOS 91B; and practical nurses, MOS 91C, who are assigned to the 25th Infantry Division (Light) and the 45th Support Group. Personnel from the Nursing Education and Staff Development Service provided a list of the instructors who taught each class session during the year and a list of the medical supplies and instructional materials used to teach the course. The instructors' time was calculated from the Medical Proficiency Training Program class schedule. The prices of the medical supplies used were extracted from the Tripler Army Medical Center Medical Supply Stockage List. There were also printing expenses for the Medical Proficiency Training Manual and other classroom "hand outs". The Administrative Services Branch tracks the average cost of Xerox copies on every copy machine in the Medical Center. They provided the average cost of copies per page for the copier in the Nursing Education and Staff Development Service.

Some specialized medical readiness training was not available at Tripler. Individuals attended three Department of Defense Medical Readiness Training programs to receive this training. These individuals were identified by reviewing Department of

Nursing continuing medical education files and Plans, Operations, Training, and Security records. This data was verified by reviewing every set of temporary duty (TDY) orders issued by the Tripler Military Personnel Branch during FY 1987.

EFMB training and testing is provided for Tripler personnel by the 25th Medical Battalion. Individuals were allowed to attend program in a permissive TDY status. Therefore, the only cost to the Medical Center was the man-hours lost during training and testing. The names of those attending EFMB training and testing were identified from the POTS Division files. Individuals who were awarded the EFMB were away from duty for a full 10 days. It was estimated that those individuals who were unsuccessful attended five days of training and an average of two days of testing.

Personnel Deployments

Personnel deployments were required to provide medical support for exercises conducted by other DOD organizations. The manpower support requirements for military exercises are coordinated by the Training and Operations Branch of POTS Division. An audit of their files provided an excellent record of the individuals tasked to provide support and the dates that support was provided. These support requirements were verified by auditing the Tripler Military Personnel Branch's TDY orders file.

The Clinical Support Division maintains a record of the monthly backlog of clinic appointments by clinical specialty.

This record was used to establish the potential for lost workload resulting from the absence of a physician due to exercise support requirements.

The Tripler Central Appointments System provides a monthly report identifying the number of outpatients seen by a physician within the month. From the reports published for FY 1987, the mean number of outpatients seen per day by an individual physician was computed. Using this mean and the number of days the physician was absent, an estimate of the forfeited workload was determined.

Readiness Logistics Management

The Inventory Management Specialist provided an estimate of the percentage of her time committed to managing the mobilization stocks and providing the necessary reports to the U.S. Army Medical Materiel Agency at Fort Detrick, Maryland.

Army Physical Fitness Test

The actual time taken to complete the semi-annual physical fitness tests and the manpower used to support test administration was not recorded in FY 1987. As a surrogate measure, the resources used to conduct the semi-annual test during the period April 4-9, 1988 were determined.

Throughout the six day test period, 173 individuals were randomly selected as they signed in at the administrative control station to receive their Army Physical Fitness Test (APFT) Scorecard. They were given an additional file card to carry throughout the test. Recorded on the file card was the time the

individual signed in at the administrative control station. After completing the physical fitness test, the selected individuals presented their file card to test proctors at the height and weight measurement station. The individual recording the height and weight on the APFT Scorecard entered the time of the weighing on the file card, which signified the end of the physical fitness test. The file cards and APFT Scorecards were collected at the administrative control station. From these file cards a mean test time was computed for the 173 person sample. This sample mean time was used as a representative measure of the mean test time for the 1321 total individuals taking the April 1988 APFT.

The mean test time was multiplied by the number of individuals tested during the two FY 1987 physical fitness tests to provide an estimate of the number of participant man-hours expended during the tests. Also, the number of man-hours expended by test graders and administrative personnel in conducting the April 1988 test were used to approximate the support requirements for the FY 1987 tests.

Data Validation Criteria

The data were given a validity classification based on the source of the data. Actual file copies of training records or other administrative documents, which identified individuals who participated in a medical readiness activity, the date and time of the activity, and the supplies used to conduct the activity, were considered the most reliable data. They were primary source data. In the absence of primary source data, the individual who

directed the medical readiness activity during FY 1987 estimated the resources used by his activity. This was considered secondary source data. First hand knowledge of the planning, preparation, and conduct of a medical readiness activity provides much more credible data than the observation of a participant. The next lower level of data reliability was data generated by recording the resources consumed in conducting the same type readiness activity during FY 1988. This tertiary source data was used as a surrogate measure of the resources utilized in FY 1987 and was only acceptable if the FY 1988 data met the primary source data criteria. The lowest level of acceptable data, quaternary source data, were estimates provided by an individual who was involved as an instructor or student, but did not coordinate the entire program. This individual may have only seen a part of the total resources used and therefore may either under-estimate or over-estimate the resources used to a greater extent than the individual who had overall responsibility for the progr

Chapter II - Discussion

During FY 1987 Tripler Army Medical Center reported 7860.75 man-hours and $1016 consumed by deployment planning and administration activities (MEPR Account Code FGAA) and 7024.5 man-hours and $1886 in other readiness planning activities (MEPR Account Code FGBA). This data represents the resources expended to operate the POTS Division during the fiscal year. The following data was collected in the six medical readiness categories (Appendix A) from the departments, divisions, and separate

services within Tripler to validate reported resource expenditures.

Readiness Planning and Administration

The only readiness planning and administration activity at TAMC during FY 1987 was mobilization planning. There were three basic mobilization planning activities conducted during the year: the writing of the Tripler Mobilization Plan, the creation of the Tripler U.S. Army Reserve Hospital (Augmentation), and updating the Tripler Army Medical Center Mobilization Table of Distribution and Allowances.

The Tripler Mobilization Plan discusses the expansion of the hospital to meet its wartime mission. The principle participant in the planning process was the Planning Officer. The Planning Officer estimated that he invested 520 hours in revising the Mobilization Plan and its associated activities during the year (Table 1). Additionally, he estimated that the Chiefs of the Materiel Branch, Blood Bank, and Military Personnel Office each contributed 40 hours each toward the preparation of the Mobilization Plan. The Mobilization Planning Committee met twice during the year to review changes in the plan. This consumed 26 man-hours in the two meetings.

To meet mobilization mission requirements in the time-frame identified in the Mobilization Plan, U.S. Army Reserve personnel had to be available from the local community. On March 12, 1987 the Tripler U.S. Army Reserve Hospital (Augmentation) was established to provide direct augmentation to Tripler upon mobiliza-

tion. Recruiting for the unit is conducted exclusively in Hawaii. Planning for the activation of this new unit consumed 140 man-hours by the Planning Officer and 80 man-hours by personnel from the Force Development Branch.

As part of the annual review cycle for the Tripler Mobilization Plan, the Force Development Branch reviewed the plan and made the necessary changes to the Mobilization Table of Distribution and Allowances. This authorization document determines the total staffing available to support the Mobilization Plan. The Force Development Branch Chief estimated that his staffing analyst worked 100 man-hours updating the Mobilization Table of Distribution and Allowance and forwarding the proposal to the U.S. Army Health Services Command.

Table 1

Readiness Planning and Administration

Man-Hours Consumed in Preparing the Mobilization Plan

Person	Man-Hours	Data Class	Percentage of the Total
Mobilization Planning			
Mobilization Planning Committee	26	1	3.0%
Plans Officer	520	2	58.7%
Chief, Materiel Branch	40	4	4.5%
Chief, Blood Bank	40	4	4.5%
Chief, Military Personnel	40	4	4.5%
Formation of the Hospital Augmentation Unit			
Plans Officer	140	2	15.8%
Force Development Branch	80	4	9.0%
TOTAL	886		

Readiness Exercises

In response to the requirement established by Army Regulation 40-13, an emergency medical team to support the Johnson Island Chemical Activity has been established at Tripler. The principal threat for the Emergency Medical Team involves a chemical munitions accident. Records were available showing that the team deployed to Johnson Island Atoll three times during FY 1987 to practice responding to this threat. These three readiness exercises consumed 3126 man-hours (Table 2).

On October 1, 1986 the Emergency Medical Team also participated in an Oahu Civil Defense earthquake response exercise consuming 23.4 man-hours.

The Team's Non-commissioned Officer-in-Charge indicated that all 19 team members were required to draw an issue of organizational equipment from the Schofield Barracks Central Issue Facility in preparation for the exercises. Including travel time, he estimated that it takes approximately two and one-half hours per individual to pick up their organizational clothing and equipment. For the 19 personnel on the Emergency Medical Team this consumed 47.5 man-hours.

Because the cost of the deployment exercises were funded by the U.S. Army Western Command, Emergency Medical Team expenses were limited to equipment purchases. During the fiscal year they purchased $8,311.25 worth of chemical protective equipment.

Table 2

Readiness Exercises

Man-Hours Consumed by the Emergency Medical Team in Training Exercises

Activity	Number of Individuals	Man-Hours/ Individual	Total Man-Hours	Data Class	Percent
24-27 Aug 87 Exercise	18	82.0	1476.0	1	46.2
27 Feb 87 Exercise	18	13.0	234.0	1	7.3
15-18 Dec 86 Exercise	18	78.7	1416.6	1	44.3
1 Oct 86 Earthquake Drill	18	1.3	23.4	1	0.7
Issue of Organizational Equipment	19	2.5	47.5	2	4.5
TOTAL			3197.5		

Readiness Training

Individual Proficiency Program

The Skill Qualification Test and the Common Task Test are two of the three primary methods of assessing the individual readiness of soldiers. The Individual Training and Evaluation Program improves readiness by refreshing soldier skills required to operate in a deployable medical treatment facility. These are skills or techniques not used routinely in the fixed medical treatment facility environment. The program also promotes the following: standardization of individual training, provision of information to commanders and military occupational specialty (MCS) proponents on the effectiveness of individual training, integration of the evaluation of individual proficiency into the overall Army training system, and provision of an objective

measurement of soldier MOS task proficiency for use in career management decisions.[12]

The Skill Qualification Test is a written examination developed by the MOS proponent to test each soldier's proficiency and skill level in his area of vocational training. It is used as an Army-wide basis for evaluation and comparison between soldiers holding the same MOS. It also provides the local commander or supervisor with an objective evaluation of a soldier's strengths and weaknesses. Soldiers in grades E-1 through E-7 are required to take the Skill Qualification Test annually.[13]

The tasks selected within each MOS for the Skill Qualification Test Program are directly related to wartime vocational skills required in a deployable medical unit. Frequently, Army Medical Department soldiers are tested on techniques they seldom or never use within a fixed medical treatment facility. Because the focus of the test is on wartime skills, the time spent to prepare for and take the Skill Qualification Test are resources committed to medical readiness.

Preparing soldiers for the Skill Qualification Test is a supervisory responsibility. During FY 1987, the task was approached in a variety of ways by different organizational activities within Tripler. Most of the activities used formal classes taught by non-commissioned officers. Some had each member of the activity teach a specific task or a group of tasks to their peers. Other activities used commissioned and non-commissioned officers to teach specific topics. Still others

developed study guides and diagnostic examinations to help individuals focus their self-study program.

There were 6360 man-hours used for skill qualification training in FY 1987 (Table 3). Two thousand, nine hundred sixty man-hours were extracted from activity training records representing primary source data (Table 5). Four thousand, three hundred seventy-nine man-hours were secondary source data. Although there was a skill qualification training program in the Logistics Division during FY 1987, a valid estimate of the resources utilized could not be generated. FY 1988 data (tertiary source) totaling 815 man-hours was used as an estimate for the FY 1987 program.

During FY 1987, 897 Tripler soldiers (Table 3) took the Skill Qualification Test at the U.S. Army Support Command-Hawaii MOS Testing Center. This number was extracted from a primary data source, the Testing Center files, and is based on the actual number of test results reported by the U.S. Army Training Support Center at Fort Eustis, Virginia where all Skill Qualification Tests are scored.

All of the Skill Qualification Tests for medical MOS are scheduled for two hours. There are a few MOS which have a test that is scheduled for two and one-half or three hours, but there are relatively few individuals working in those vocational areas at Tripler. Therefore, two hours per Skill Qualification Test (SQT) is a good estimate of the time required to take the test.

Table 3

Readiness Training

Man-Hours Consumed in the Skill Qualification Training and Testing Program

SQT Training Programs

Activity	Man-Hours	Data Class
Department of Ministry and Pastoral Care	320	2
Department of Nursing	879	2
Department of Pathology	341	2
Department of Primary Care and Community Medicine	88	2
Department of Psychiatry	592	2
Department of Radiology	40	2
Department of Surgery	125	2
Health Clinic-Schofield Barracks	125 369	1 2
Information Management Division	216	2
Logistics Division	815	3
Patient Administration Division	403	1
Personnel Division	675	2
Pharmacy Service	12	2
Physical Medicine and Rehabilitation Service	115	2
Preventive Medicine	533	2
Social Work Service	74	2
Veterinary Activity	638	1
Total	6360	

Skill Qualification Testing

Individuals Tested	Length of Test (Hours)	Total Man-Hours Consumed
897	2	1794

Total Program

Man-Hours Consumed-Training	Man-Hours Consumed-Testing	Grand Total
6360	1794	8154

This results in an expenditure of 1794 man-hours for Skill Qualification Testing during the fiscal year.

There were very few dollars used to support MOS skill qualification training. Since the SQT is written, very little of the training was done in a hands-on mode. The estimated total expense for supplies was $391 (secondary source data). Approximately, $100 of the $391 was used by the Department of Radiology to make Xerox copies of study guides (Table 4). Two hundred eighty-two dollars worth of medical supplies were used in SQT training at the U.S. Health Clinic at Schofield Barracks, Hawaii during the fiscal year.

The total program expenditure was 8154 man-hours or 4.2 man-years and $391 in supply expenses (Table 5). Ninety percent of the manpower data was from primary and secondary sources and all of the supply expenses were from secondary sources.

Since the primary mission of Tripler Army Medical Center is to provide medical care to the active duty soldier, practicing wartime soldier skills are not a part of the daily work routine. A special training effort must be made to prepare Tripler soldiers for the Common Task Test.

The Common Task Test focusses on fundamental combat and survival skills such as: tactical communication techniques; protection in a nuclear, biological, and chemical warfare environment; land navigation techniques; the effective use and maintenance of individual weapons; and proper first aid techniques. Each active duty soldier grade E-1 through E-7, regardless of duty

Table 4

Dollar Resources Consumed in SQT Training Programs

Activity	Supply Cost	Data Source
Department of Nursing	$ 9	2
Department of Radiology	$ 100	2
Health Clinic-Schofield Barracks	$ 282	2
Total	$ 391	

Table 5

Composition of Skill Qualification Data

Type of Data Source	Man-Hours	Supply Cost
Primary Data	2960 (36.3%)	$ 0 (0.0%)
Secondary Data	4379 (53.7%)	$ 391 (100 %)
Tertiary Data	815 (10.0%)	$ 0 (0.0%)
Total	8154	$ 391

position, is required to take the Common Task Test annually. The test can be administered in a "hands-on" or a written mode. In the "hands-on" mode soldiers would physically perform the required combat and survival skills. In the written mode they are asked questions about these skills.[14]

The results of the Common Task Test are designed to assess the unit training program and to give active duty commanders and supervisors an indication of a soldier's qualification for promotion, reenlistment, or higher levels of responsibility. This training contributes to their individual readiness to deploy

and meet wartime mission requirements. Common task training is one of the major contributions Tripler makes to the medical readiness of the Army Medical Department.

During FY 1987, TAMC administered the Common Task Test in a written exam format. There were 846 soldiers tested and they were allowed 65 minutes to complete the exam. Approximately six non-commissioned officers were used to administer and score the tests. This consumed 1349 man-hours (Table 6).

Preparing soldiers working in the hospital for the Common Task Test was a departmental, divisional, or separate service responsibility. In some activities the non-commissioned officers provided instruction in the lecture format for their soldiers. Other activities divided the tasks among all the soldiers and they taught each other. One activity held a "brown bag" seminar where the tasks were discussed informally. Two activities prepared written study guides for their soldiers and encouraged them to study independently. Soldiers assigned to Tripler Medical Company C, who work at the U.S. Army Health Clinic-Schofield Barracks, were provided with company sponsored training conducted by the non-commissioned officers assigned. There were 94 man-hours consumed in Company C training. A significant number of activities totally relied on independent study. There were 3070 man-hours (Table 6) and $100 worth of Xerox copying costs (Table 7) accumulated in these various training programs.

The Common Task Training and Testing Program consumed 4419 man-hours or 2.2 man-years and approximately $100 in supply costs

Table 6

Readiness Training

Man-Hours Consumed in the Common Task Training and Testing Program

Activity	Man-Hours	Data Class
Department of Medicine	96	2
Department of Nursing	580	2
	511	4
Department of Pathology	560	2
Department of Primary Care and Community Medicine	37.5	2
Department of Radiology	20	2
Department of Surgery	86	2
Health Clinic-Schofield Barracks	94	1
Information Management Division	216	2
Pharmacy Service	73	2
Preventive Medicine	368	2
Social Work Service	78	2
Veterinary Activity	327	1
Total	3070	

Common Task Testing

	Individuals	Time/Individual	Total Man-Hours Consumed
Participants	846	65 mins	917
Support Personnel	6	72 hours	432
Total Man-Hours			1349

Total Program

Man-Hours Consumed-Training	Man-Hours Consumed-Testing	Grand Total
3070	1349	4419

during FY 1987. Of the data collected 34.8 percent is considered primary source data (Table 8). The remaining 65.2 percent is divided between secondary (53.6 percent) and quaternary data (11.6 percent).

Table 7

Readiness Training

Dollar Resources Consumed in Common Task Training and Testing Program

Activity	Supply Cost	Data Source
Department of Radiology	$ 100	2

Table 8

Readiness Training

Composition of Common Task Training and Testing Data

Type of Data Source	Man-Hours	Supply Cost
Primary Data	1539 (34.8%)	$ 0 (0.0%)
Secondary Data	2369 (53.6%)	$ 100 (100 %)
Tertiary Data	0 (0.0%)	$ 0 (0.0%)
Quaternary Data	511 (11.6%)	$ 0 (0.0%)
Total	4419	$ 100

Advanced Trauma Life Support Course

In 1984, in response to increased emphasis in providing physicians of all specialties with needed wartime emergency medical skills, the Department of Surgery began sponsoring an American College of Surgeons accredited Advanced Trauma Life

Support (ATLS) Course annually. The Tripler ATLS Course provides the Medical Staff with an opportunity to earn Advanced Trauma Life Support certification without the expense of traveling to Camp Bullis, Texas to attend the Combat Casualty Care Course. Because it is a locally offered substitute for the Combat Casualty Care Course, it contributes to the medical readiness of the physicians on the Tripler Medical Staff.

The course was offered on March 26-27, 1987. Six of the 15 students enrolled were from Tripler and the course faculty was comprised of eleven Tripler physicians (Table 9). The students' class time and the instructors' platform time were extracted from the course schedule. Each instructor was given two hours of preparation time for each new block of instruction prepared. The course consumed 99 student man-hours, 55.5 instructor man-hours, 60 man-hours of administration preparation time for a total of 214.5 man-hours. The origin of the data was 72 percent primary source data and 28 percent quaternary source data.There was a significant cost of materials associated with conducting the course. The students' registration fees with the American College of Surgeons totalled $375 (Table 10). The cost of the text books ($420), medical supplies ($302), and required radiographs ($60) totalled approximately $782. The required laboratory animals cost approximately $240. Furthermore, the Medical Illustrator spent about one hour moulaging three patients at a cost of $35. This total cost was approximately $1,432 (Table 10). The materials expense was primary source data, except the moulage cost (3 percent of the total).

Table 9

American College of Surgeons Advanced Trauma Life Support Course

Student Hours

Name	Rank	Role	Class Time (Hours)	Preparation Time	Total Man-Hours
McKoy, James	LTC	Student	16.5		16.5
Wilson, James	LTC	Student	16.5		16.5
Paradis, Marc	MAJ	Student	16.5		16.5
Besenbruch, Valarie L.	CPT	Student	16.5		16.5
Martin, Robert R.	CPT	Student	16.5		16.5
Riel, Michael A.	CPT	Student	16.5		16.5
Total Student Man-Hours					99.0

Instructor Hours

Reinker, Kent A.	COL	Instructor	2.0	2.0	4.00
Wilkinson, George R.	COL	Instructor	0.75	1.5	2.25
Yim, Donald W.S.	COL	Instructor	3.0	1.0	4.00
Lee, Y.T. Margaret	LTC	Instructor	3.5	1.0	4.50
Wortham, Dale	LTC	Instructor	0.75	2.5	3.25
Antonie, Gregory A.	MAJ	Instructor	1.5	1.0	2.50
Kilfoyle, Richard G.	MAJ	Instructor	4.5	1.0	4.50
Spetka, Lawrence M.	MAJ	Instructor	0.83	1.67	2.50
Tamamoto, Warren I.	MAJ	Instructor	3.5	2.0	5.50
Gusz, John R.	CPT	Instructor	4.0	6.0	10.00
Shaver, Timothy R.	CPT	Instructor	3.5	6.0	9.50
Total			27.83	27.67	55.50

Administrator's Hours

Rogers, Frank	MAJ	Administrator	60.0*

Total Hours

Student Hours	99.0
Instructor Hours	55.5
Administrator's Hours	60.0
Grand Total	214.5 Man-hours

* Time estimate provided by Ms. Naomi Namba, Department of Surgery Secretary, quaternary data.

Table 10

Readiness Training

American College of Surgeons Advanced Trauma Life Support Materials Costs

Medical Supplies

Item Required	Unit Price	Unit of Measure	Unit Cost	Quantity	Cost
Catheter, 16 gauge	$ 48.22	50	$ 0.96	6	$ 5.79
Catheter, 18 gauge	$ 88.79	200	$ 0.44	6	$ 2.66
Catheter, 20 gauge	$ 45.00	50	$ 0.90	6	$ 5.40
Catheter-Needle Unit IV 18 gauge	$ 45.00	50	$ 0.90	2	$ 1.80
Needle, Spinal Anesthesia 18 gauge	$231.00	100	$ 2.31	10	$ 23.10
Needle, 18 gauge 1&1/2" Long	$ 2.52	100	$ 0.03	10	$ 0.25
IV Tube Macrodrip	$ 38.80	48	$ 0.81	6	$ 4.85
IV Extension Tube	$ 19.53	120	$ 0.16	2	$ 0.33
Tube, Tracheostomy	$ 26.75	1	$26.75	7	$187.25
Needle, Suture Cutting	$ 0.59	6	$ 0.10	24	$ 2.36
Needle, Suture Taper Point	$ 0.50	6	$ 0.08	24	$ 2.00
Suture, 3.0 Silk	$ 6.74	12	$ 0.56	48	$ 26.96
Ringer's Inj Lactated USP 1000ml	$ 9.18	12	$ 0.77	12	$ 9.18
Dextrose and Sod Chloride Inj 1000ml	$ 9.49	12	$ 0.79	12	$ 9.49
Tube, Endo Pediatric Plastic 3 mm	$ 27.25	10	$ 2.73	4	$ 10.90
Syringe, Luerlock 6ml	$ 6.50	50	$ 0.13	10	$ 1.30
Syringe, Luerlock 12ml	$ 24.75	100	$ 0.25	10	$ 2.48
Syringe, Luerlock 50ml	$ 4.63	100	$ 0.05	10	$ 0.50
Knife, General Surgery w/ Blades	$ 5.25	10	$ 0.53	10	$ 5.25
Total					$301.85

Other Materials

Item	Cost	Data Source
Text Books	$ 420.00	1
Student Registration Fee (Staff)	$ 360.00	1
Student Registration Fee (Resident)	$ 15.00	1
Laboratory Animals	$ 240.00	1
Moulage Cost	$ 35.00	2
C-Spine Radiographs	$ 60.00	1
Total	$ 1130.00	

Table 10 continued

Readiness Training

American College of Surgeons Advanced Trauma Life Support Materials Costs

Total Cost	
Medical Supply Cost	$ 301.85
Other Materials Cost	$ 1130.00
Total Cost	$ 1431.85

Community Health Nursing Training

Community Health Nurses do not have a specific wartime mission. As a group they revert to the role of the medical/surgical nurse on mobilization day. To insure they have maintained their medical/surgical nursing skills, the Community Health Nursing Section holds a thirty-minute medical readiness continuing education seminar on a monthly basis in conjunction with their administrative meeting. There were fifteen man-hours consumed to support this medical readiness activity during FY 1987 (Table 11).

Table 11

Community Health Nursing Section Medical Readiness Seminar

Date	Class Title	Number Attending	Total Man-Hours
22 May 87	Wound Management	4	2.0
12 Jun 87	Burn Management	5	2.5
26 Jun 87	Nuclear, Chemical, Biological Casualty	4	2.0
10 Jul 87	Hepatitis	5	2.5
24 Jul 87	Respirator Patient Care	6	3.0
14 Aug 87	Orthopedic Emergencies	6	3.0
	Total		15.0

Professional Filler System

The Professional Filler System (PROFIS) identifies 29 Tripler physicians by name for deployment with the 25th Infantry Division (Light) at mobilization. U.S. Army Health Services Command Regulation 350-4 requires Tripler to provide professional filler personnel with an annual field training experience. During FY 1987, the POTS Division conducted the required training on April 17-19 and August 8-10, 1987. The training included weapons training and classes on the U.S. Military Code of Conduct and the Hague and Geneva Convention. Twenty-eight physicians attended the scheduled training, consuming 1008 man-hours (Table 12). Seven support personnel were required (252 man-hours), resulting in a total of 1260 man-hours for PROFIS training. The supply costs could not be separated from the total annual supply cost for the division. Therefore supply costs for PROFIS training were not included in this study.

Table 12

Professional Filler System (PROFIS) Training

	Number Participating	Man-Hours
Students	28	1008[a]
Support Personnel	7	252[b]
TOTAL	35	1260

[a] Primary Source Data
[b] Quaternary Source Data

Psychiatry Field Training Exercise

The Department of Psychiatry conducted a three day field training exercise in August 1987. Forty-two officers and enlisted men from the Department of Psychiatry and the Social Work Service participated in the exercise. The 25th Medical Battalion from Schofield Barracks, Hawaii provided instructors for some of the classes (not counted as TAMC resources utilized). Fourteen support personnel were borrowed from other departments of Tripler to teach medical and military subjects, simulate enemy aggressors, and play patients during the exercise. There were 251.5 man-hours consumed planning the exercise and 3360 man-hours consumed during its execution (Table 13). In total the Department of Psychiatry field training exercise consumed 3611.5 man-hours.

Because this was the first year the field training exercise was conducted there were a number of one time purchases. The major expenditure was a moulage kit, $380. The Department of Psychiatry Non-commissioned Officer-in-Charge, who was responsible for the logistics support requirements, estimated the exercise cost the department $700.

Medical Proficiency Training Program

The Medical Proficiency Training Program was established to provide Army Medical Department personnel assigned to deployable medical units of the 25th Infantry Division (Light) and the 45th Support Group with an opportunity to work in a fixed medical treatment facility. The Nursing Education and Staff Development Service provides a training program designed to insure these

Table 13

Department of Psychiatry Field Training Exercise

Activity	Man-Hours
Planning and Preparation	
COL Collins	35
LTC Moore	3
LTC Lenz	60
LTC Schneider	2
MAJ Crandell	30
CPT Erickson	55
CPT Zeff	1.5
SSG Anderson	8
SSG Becker	42
SGT Pinkard	15
Total	251.5
Attendance	
42 Students	3024
14 Support Personnel	336
Total	3360
Grand Total	3611.5
Total Cost of the Exercise	$700.00

individuals maintain a minimum level of proficiency in patient care skills. The training of these soldiers constitutes a medical readiness training program, because it prepares these para-professional medical personnel for their wartime roles.

The program of instruction involved two weeks of classroom training and patient care skills laboratories, followed by six

weeks of practical experience in patient care areas (Table 14). During the weeks of clinical experience, there is an additional two hours per week of classroom instruction to reinforce earlier classroom presentations.

Seventy-five percent of the students are from the 25th Division and 45th Support Group, so they do not belong to Tripler and their class participation was not counted as a Tripler medical readiness activity. The remaining 25 percent of the personnel trained in the program in FY 1987 were Tripler personnel attending the class to refresh their patient care skills. Because they are receiving their training primarily to help them to better perform their peacetime nursing care mission, their class time was not counted as manpower used in medical readiness activity.

Only the instructors' time was considered to be a Tripler medical readiness activity. The instructor requirement was based on the need to provide training to non-Tripler personnel, because Tripler personnel were only used to fill empty seats in each Medical Proficiency Training Cycle.

The instructors' time was calculated from the Medical Proficiency Training Program Class Schedule. Personnel from the Nursing Education and Staff Development Service provided a list of the instructors who taught each class session during the year.

The Nursing Education and Staff Development Office provided a list of the medical supplies used to teach the course (Table 15). The prices of these items were taken from the Tripler Army Medical Center Medical Supply Stockage List. There were also

Table 14

Readiness Training

Medical Proficiency Training Program Manpower Requirements

Class Title	Class Hours Per Cycle	Number of Cycles	Man-Hours
In-processing	2	5	10
Intro and Self-Assessment of Skills	1	5	5
Vital Signs	2	5	10
Management of Psychiatry Patients	3	5	15
Quality Assurance-1	1	5	5
Irrigate Eye and Instill Drops	0.75	5	3.75
Suction and IMED Pumps	1.5	5	7.5
A.M. Care	1.5	5	7.5
Terminally Cleaning a Unit	3.25	5	16.25
Legal/Ethical Issues	0.75	5	3.75
Patient Traction	2	5	10
Nursing Paper Work	3	5	15
Autopsy/Pathology	1	5	5
Judge Advocate General's Role	1	5	5
Stress Management	1.5	5	7.5
Function of the Community Health Nurse and Social Services	1	5	5
Pre/Post Nutritional Needs	1	5	5
Function of Service Liaison	1	5	5
Sterile Technique and Changing a Sterile Dressing	1	5	5
Chain of Infection	1	5	5
Medical Terminology	1.5	5	7.5
Aids to Daily Living	2	5	10
Suctioning	1	5	5
Patient Supports	1	5	5
EKG	2	5	10
Hospital Tour	0.5	5	2.5
Crash Cart	1	5	5

Table 14 continued

Readiness Training

Medical Proficiency Training Program Manpower Requirements (continued)

Class Title	Class Hours Per Cycle	Number of Cycles	Man-Hours
Management of a Patient with a Drug and/or ETOH Abuse Problem	1	5	5
Assessment/Oxygen	1	5	5
Wound Drainage Devices (Ostomy)	2	5	10
Army Community Services	1	5	5
Quality Assurance-2	1	5	5
Management of a Patient With Communicable Diseases	1	5	5
Specimens for Diagnostic Testing	2	5	10
Physical Therapy	1	5	5
Ambulances and the Ambulance Section	2	5	10
Pain Management	2	5	10
Weekly Follow-up Sessions	1	5	5
Drawing Blood	2.75	5	13.75
CPR	8	5	40
Total	65		325

printing expenses for the Medical Proficiency Training Manual and other classroom "hand outs". The Administrative Services Branch provided the average cost of copies per page for the copier in the Nursing Education and Staff Development Service.

The supply costs were determined to be fixed costs, because only minimum quantities were used for demonstrating nursing techniques within the classroom. Where possible the items were reused for other classes. The quantity of supplies required was determined by the subject matter of the class and was somewhat

Table 15

Medical Proficiency Training Supply Cost

Item	Quantity	Unit of Issue	Cost
Adhesive Tape 1"	1	Roll	$ 0.27
Bag, Ostomy Plastic	3	Each	$ 3.07
Basin, Emesis	10	Each	$ 0.66
Basin, Wash Disposable	1	Each	$ 0.31
Catheter, Suction	25	Each	$ 6.34
Cup, Specimen	5	Each	$ 0.36
Gloves, Sterile Surgical	50	Each	$12.94
Gown, Disposable	1	Each	$ 0.43
Mask, Surgical	1	Each	$ 0.08
Needle, Blood Collecting	20	Each	$ 2.56
Irrigating Solution, Eye	1	Bottle	$ 4.90
Pad, Abdominal	1	Each	$ 0.20
Pad, Alcohol Prep	1	Box	$ 0.60
Sponge, Cleaning	4	Each	$ 7.00
Sponge, Surgical 2" X 2"	1	Box	$ 1.53
Sponge, Surgical 4" X 4"	1	Box	$ 3.49
Syringe, Hypodermic 10ml	4	Each	$ 0.24
Syringe, Hypodermic 30ml	4	Each	$ 0.60
Syringe, Irrigating Bulb	10	Each	$ 5.27
Test Kit, Occult Blood	1	Box	$10.91
Test Strips, Gluc. in Urine	1	Box	$ 4.37
Test Strips, Urine	1	Box	$26.71
Tube, Blood Collection 15ml	20	Each	$ 1.13
Wafer, Ostomy	5	Each	$ 4.34
Wafer, Sterile Irrigating	1	Each	$ 0.79
Reference Materials			$477.75
Total			$577.05

independent of the class size. Therefore, 100 percent of the supply cost was counted as medical readiness training cost.

During FY 1987 there were five full Medical Proficiency Training Courses conducted and a part of two others (October 1-24, 1986 and September 2-30, 1987). These courses consumed 325 manhours of instructor platform time (Table 14) and cost $577.05 in medical supplies and reference materials (Table 15). Because there were three courses offered in FY 1986 and the lesson plans were well established before the FY 1987 courses were taught, no instructor preparation was included in manpower requirements for this program. The data was extracted from the files of the Nursing Education and Staff Development Service (primary source data).

Training Programs Outside TAMC

There were six DOD medical readiness training programs attended by Tripler personnel during FY 1987. The most popular was the Combat Casualty Care Course at Camp Bullis, Texas. Because this course is an Army Medical Department training requirement for all interns, 49 Tripler physicians participated in the course in FY 1987. Five Army Nurse Corps Officers also attended the course during the fiscal year. A total of 540 man-days (4320 man-hours) of medical readiness training were accumulated by Tripler staff attending the Combat Casualty Care Course (Table 16). An additional five physicians attended the Advanced Combat Casualty Care Course at Camp Bullis, Texas during the year consuming another 50 Tripler man-days (400 man-hours).

Table 16

Readiness Training

Training Programs Outside TAMC

Course Name	Length (Days)	Attendance	Total Man-Days
Combat Casualty Care Course	10	54	540
Advanced Combat Casualty Care Course	10	5	50
Medical Effects of Nuclear Weapons	5	8	42[a]
Medical Management of Chemical Casualties	7	6	42
AMEDD Division and Combat Psychiatry Course	6	2	12
Field Nursing Course	9	1	9
Expert Field Medical Badge			
Awardees	10	7	70
Participants	7	3	21
Total Man-Days			786
Total Man-Hours (8 work-hours/day)			6288

[a] Travel time to and from training site included

[b] Two individuals required an additional travel day

Eight physicians attended the Medical Effects of Nuclear Weapons Course at either the Xerox Training Center in Leesburg, Virginia or the Uniformed Services University of Health Sciences in Bethesda, Maryland. Their attendance resulted in the consumption of 42 man-days (336 man-hours). Another medical readiness training program is the Medical Management of Chemical Casualties taught at the Edgewood Area of the Aberdeen Proving Grounds, Maryland. Six physicians attended this program during the year consuming 42 man-days (336 man-hours). The Department of Psychiatry sent a physician and a clinical psychologist to the Army Medical Depart-

ment Division and Combat Psychiatry Course at Fort Benning, Georgia, which cost them twelve man-days (96 man-hours). Finally, the Department of Nursing sent one nurse to the Field Nursing Course at the Academy of Health Sciences, Fort Sam Houston, Texas, consuming nine man-days (72 man-hours). The combined total of manpower expended in these medical readiness short training courses was 695 man-days (5560 man-hours) or 2.77 full-time equivalents.

The Expert Field Medical Badge (EFMB) is also an excellent medical readiness training program. TAMC personnel participated in the 25th Medical Battalion EFMB Test Program during the period January 20-29, 1987. The EFMB, as the name implies, is a test of battlefield medical skills. It is the premier test of individual medical readiness for Army Medical Department para-professionals. The 25th Medical Battalion program consisted of one week of refresher training and then the test. Seven of the 10 participants were awarded the badge, so they participated for the entire 10 day period (primary data). The other three personnel were credited with attending the training and one-half of the test period, totaling seven days (primary data). This totalled 91 man-days (728 man-hours) consumed in this medical readiness activity.

A total of 86 individuals participated in medical readiness training programs conducted outside of TAMC during FY 1987. Their participation consumed a total 786 man-days or 6288 man-hours. This equates to 3.13 man-years of time spent away from Tripler.

Personnel Deployment

During FY 1987, Tripler was tasked to support seven different types of deployment exercises. Four of these exercises (Orient Shield, Cobra Gold, Team Spirit, and the OJ series) were in support of deployments of the 25th Infantry Division. The other taskings came from the U.S. Army Health Services Command to support exercises in West Germany, Panama, and Honduras. All of the exercises provided the opportunity for physicians and nurses to participate in a deployment and to experience the provision of medical care in a setting other than a fixed medical treatment facility. In addition to supporting Army training requirements, the experience enhanced the medical readiness of deploying individuals.

Through reviewing the records of the POTS Division, it was determined that Tripler personnel were deployed a total of 621 days (4968 man-hours) during FY 1987 (Table 17). This is in excess of two man-years of nonproductive time for the Medical Center. Two-thirds of the total man-days were days lost by physicians.

Losing physician days has a two-fold impact on the resources of the Medical Center. First, it increases the inpatient workload for the remaining members of the Medical Staff. Inpatient care will be provided despite a shortage of staff, so there is only a minimal drop in inpatient workload. The increased workload per physician has a negative impact on the morale of the Medical Staff. Secondly, it reduces the number of MCCUs produced at TAMC

Table 17

Personnel Deployments

Exercise Support Manpower Requirements

Exercise	Period	Name	Rank	Corps	Man-Days
Orient Shield	5 Oct-10 Nov 86	Harding, Neal	MAJ	MC	37
		Long, William F.	MAJ	MC	37
OJ1-87	15-23 Oct 86	Watters, Michael	MAJ	MC	9
	23-31 Oct 86	Zieske, Larry A.	MAJ	MC	9
	31 Oct- 7 Nov 86	Nishimura, Mary C.	CPT	MC	8
	7-10 Nov 86	Soderdahl, Douglas	COL	MC	4
Team Spirit	9 Mar-20 Apr 87	Dunlap, Weldon	LTC	MC	43
		Quanstrum, Thomas J.	MAJ	MC	43
		Woods, Phillip H.	MAJ	MC	43
		Olsen, John D.	CPT	MC	43
US Navy Mercy	15 Mar- 8 Apr 87	Brown, Joel	COL	MC	25
	7-31 May 87	Seal, Lawton	CPT	MS	25
OJ2-87	5-10 May 87	Bowen, Robert E.	MAJ	MC	6
	10-14 May 87	Fisher, Curtis	CPT	MC	5
	14-19 May 87	Schulte, Jeffrey	MAJ	MC	6
	19-27 May 87	Schanbacher, Paul	CPT	MC	9
Cobra Gold	16 Jul-26 Aug 87	Furlow, Bruce M.	LTC	MS	42
OJ3-87	10-12 Aug 87	Dresner, Martin	COL	MC	3
	12-18 Aug 87	Harrell, John	MAJ	MC	7
	18-26 Aug 87	Roy, Timothy	CPT	MC	9
Panama	11-22 Aug 87	Pang, Lorin W.	MAJ	MC	12
Honduras	12 Aug-30 Sep 87	Allen, Steven D.	CPT	AN	50
	5-30 Sep 87	Best, Marcia	MAJ	AN	26
	19-30 Sep 87	Lacourse, Judith	LT	AN	12
Ulchi Focus Lens	12-30 Aug 87	Aoki, Wayne	LTC	MS	19
		Brown, Clifford	SGM	RA	19
Reforger	5-30 Sep 87	Heth, Samuel R.	LTC	MC	45
	17 Aug-30 Sep 87	Torrance, Youhan D.	MAJ	AN	25
Total					621

by decreasing the number of outpatients that can be seen in a clinic.

To legitimately claim there were lost MCCUs during the absence of a physician, there must be evidence that there were patients who needed to be seen when the physician was absent. The existence of a patient appointment backlog at the time of a physician's absence is a clear indication that there were patients who needed to be seen, but could not get an appointment. In determining the number of outpatient visits lost during FY 1987 because of exercise participation, the average number of outpatients a physician sees per day had to be determined. The Tripler Central Appointments System captures the number of outpatients seen by each physician each month. Using the monthly totals for FY 1987, a mean number of patients seen per day was computed for each physician participating in an exercise mission. Selecting only those physicians working in clinics that had established backlogs, the number of days absent was multiplied by the average number of patients seen per day. The number of lost outpatient visits for each physician was totaled to determine the total number of outpatient visits forfeited.

It was determined that Tripler forfeited approximately 433 outpatient visits during FY 1987 due to physician deployments. Each outpatient visit generates 0.3 MCCUs, so Tripler forfeited approximately 130 MCCUs as a result of physician deployments. Since the Medical Center was reimbursed $157.11 per MCCU, the lost workload cost the Medical Center about $20,400 (Table 18).

Table 18

Personnel Deployments

Opportunity Cost of Exercise Support

Programmed Physician Name	Rank	Patient Backlog	Average Patient Visits/Day	Man-Days Absent	Man-Days Visits Missed	Patient Forfeited	MCCUs MCCU Cost
Dresner, Martin	COL	45	1.3	3	3.4	1.0	$ 157.11
Dunlap, Weldon A.	COL	40	7.2	43	308.9	92.7	$14564.10
Heth, Samuel R.	LTC	UNK*	3.1	25	77.5	23.3	$ 3660.63
Bowen, Robert E.	MAJ	278	4.7	6	28.5	8.6	$ 1351.15
Roy, Timothy	CPT	6	1.6	9	14.4	4.3	$ 675.57
Total					432.7	129.9	$20,408.56

* Exact patient backlog unknown, but all patient appointments booked indicating patient demand for services.

Readiness Logistics Management

Mobilization stocks are supplies and equipment pre-positioned at Tripler to support the Mobilization Plan. The supply and equipment requirements are divided among six programs: Pre-positioned War Materiel Reserves, Supplemental Medical Materiel Program, Medical Materiel Program for Defense Against Biological and Chemical Agents, and the U.S. Army Western Command Theater War Materiel Reserves Program. Within the Tripler Materiel Branch there is an inventory management specialist who spends 20 percent of her time (about 400 man-hours per year) managing the stock, preparing reports, and coordinating new requirements and purchases with the U.S. Army Medical Materiel Agency at Fort Detrick, Maryland (Table 19). Also, the U.S. Army Western Command funded four warehouseman positions to initiate a program of caring for

the mobilization stocks in storage. Their efforts consumed approximately 6000 man-hours.

As the result of losing a warehouse to the U.S. Army Support Command-Hawaii, the Materiel Branch spent nearly 1200 man-hours moving a large percentage of the mobilization stock into a new building.

The total manpower requirement to support logistics readiness activities in FY 1987 was 7600 man-hours or 3.8 man-years.

Table 19

Readiness Logistics Management

Total Manpower Requirements to Support Materiel Branch Readiness Activities

Activity	Man-Hours in FY 87
Inventory Management of War Reserves	400
Man-Hours for Care of Supplies in Storage (COSIS)	6000
Man-Hours for Rewarehousing	1200
Total	7600

Readiness Physical Training

The Army Physical Fitness Test (APFT) is administered semi-annually and is designed to insure that all Army members maintain a minimum level of physical fitness. The standard is established to support the readiness requirements of the Army by insuring all soldiers have the strength and stamina to perform in the combat environment.

At Tripler Army Medical Center, the Troop Commander is responsible for administering the test and it was given during the periods October 5-10, 1986 and April 5-11, 1987. Duty sections were allowed to schedule their personnel to take the test any time between 6:00 a.m. and 2:00 p.m. and everyone was encouraged to take the test before normal duty hours to minimize the amount of lost work time. The total number of tests given during the fiscal year, 1704, was reported to the Headquarters, U.S. Army Health Services Command by the POTS Division in the FY 1987 Activity Training Report.

There was no record of the average time it took for an individual to complete the APFT during FY 1987. The most accurate means of developing a credible estimate of the time taken for an individual to complete the test was to measure the time used during a FY 1988 test. This average time was applied to the total number of tests taken during FY 1987 to estimate the man-hours consumed by participants.

Because the daily test period was reduced from nine hours daily to six in 1988, the estimated man-hours used to administer the FY 1987 test are probably understated. However, since so few people were tested in the later hours of the test period in 1987, support personnel were released early. The actual number of hours worked could not be accurately reconstructed. For consistency the number of support personnel used in the April 1988 test were used as an estimate of the man-hours consumed in administering the FY 1987 tests.

It was determined that the average time required to complete the APFT conducted on April 4-9, 1988 was 71.9 minutes (Table 20). With 1704 tests given in FY 1987, the estimated manpower consumed by individuals taking the APFT in FY 1987 is 2033 man-hours. Further, 19 personnel were required to administer the April 1988 test totaling 1254 man-hours consumed. This was used to estimate the support requirement for the FY 1987 tests. The estimated grand total man-hours consumed conducting the APFT was 3287 hours. Using FY 1988 data as a surrogate measure of the 1987 data provides tertiary source data.

Table 20

Readiness Physical Training

Sample Times Required to Complete the AFPT in April 1988

4 Apr 88	5 Apr 88	6 Apr 88	7 Apr 88	8 Apr 88	9 Apr 88
45	102	50	64	90	69
46	115	66	94	93	101
48	77	81	68	99	68
33	86	65	102	86	59
55	78	70	42	109	82
	74	54	65	90	83
	77	79	101	94	70
	86	61	80	66	98
	76	97	94	89	69
	76	85	96	97	94
	54	89	114	84	86
	69	90	88	80	78
	34	77	87	93	88
	56	79	89	91	87
	36	140	81	91	71
	47	47	119	82	72
		58	119	66	68
		86	77	57	51
		87	84	122	54
		89	75	72	63
		86	67	70	60
		94	99	71	44
		124	63	88	67
		83	87	67	66
		92	68	67	63
		75	66	61	64
		87	71	64	65
		80	75	70	51
		70	60	49	42
		76	69	75	41
		83	58	84	
		67	61	57	
		23	52	47	
		55	34	44	
		50	47	49	
		44	39	81	
		59	31	47	
		61		56	
		43		54	
		48		36	
		36			

Average Time Per Test

Total Minutes		Sample Size		Average Time/Test
12147	/	169	=	71.9 minutes

Table 21

Readiness Physical Training

Estimated Total Man-Hours Consumed Taking the AFPT

Estimated Number of AFPTs Given		Estimated Time per Test		Total Man-Hours
1704	X	71.9	=	2033

Support Personnel Requirements

Number Required/Day		Days		Time Period (Hours)	Total Man-Hours	
19	X	6	X	5.5	=	1254

Total Man-Hours Used

AFPT Man-Hours		Support Personnel Man-Hours		GRAND TOTAL
2033	+	1254	=	3287

Chapter III - Summary

Medical readiness programs are a vital part of the Army Medical Department mission. They are an integral part of an overall Army requirement to maintain an adequate readiness posture to deter war and therefore maintain the freedom of the American people. But these programs are not without a real cost.

Tripler medical readiness programs consumed a total of 58,444.5 man-hours during FY 1987 (Table 22). Readiness training was the most significant readiness category consuming 41.5 percent of the total manpower expenditure. The man-hours consumed in readiness planning and administration and logistics readiness were heavily influenced by employees hired principally to meet medical readiness requirements (22,345 man-hours) (Table 23). The readiness planning and administration man-hours were almost exclusively consumed by the full-time personnel of the POTS Division (14,745 man-hours) (Table 23). Employees of the Materiel Branch logged 7600 man-hours in logistics readiness activities. In both categories participation in these medical readiness activities did not divert individuals from providing patient care and MCCU producing activities. Subtracting the 22,345 man-hours consumed in readiness planning and administration activities and logistics readiness activities from the 58,444.5 man-hour total leaves 36,099.5 man-hours diverted from patient care or activities directly supporting patient care.

Table 22

Medical Readiness Programs Total Manpower Requirements

	Man-Hours				
Program	Primary	Secondary	Tertiary	Quaternary	Total
Readiness Planning and Administration					
Mobilization Plans	26	520	0	120	666
Hospital Augmentation Unit	0	140	0	80	220
MEPR Planning and Administration Data	7340[a]	0	0	0	7340
MEPR Other Readiness Planning	6885[b]	0	0	0	6885
Sub-Total	14251	660	0	200	15111
Readiness Exercises					
Emergency Medical Team	3150	47.5	0	0	3197.5
Readiness Training					
SQT Program	2960	4379	815	0	8154
CTT Program	1539	2369	0	511	4419
Advanced Trauma Life Support	214.5	0	0	0	214.5
Community Health Nursing Section Training	15	0	0	0	15
PROFIS Training	1008	0	0	252	1260
Department of Psychiatry Field Training Exercise	0	3611.5	0	0	3611.5
Medical Proficiency Training	325	0	0	0	325
Training Programs Outside TAMC	6282	0	0	0	6282
Sub-Total	12343.5	10359.5	815	763	24281
Personnel Deployments					
Exercise Support	4968	0	0	0	4968
Logistics Readiness	0	7600	0	0	7600
Physical Training					
Army Physical Fitness Test	0	0	3287	0	3287
Grand Total	**34712.5**	**18667.0**	**4102.0**	**963.0**	**58444.5**
Percentage	59.5%	31.9%	7.0%	1.6%	

[a] less Plans Officer's time spent on Mobilization Planning.

[b] less Plans Officer's time spent on formation of the Tripler Hospital Augmentation Unit.

Table 23

Full-Time Readiness Activity Employees

Readiness Activity	Personnel	Man-Hours
Readiness Planning and Administration		
Mobilization Plans	Planning Officer	520
MEPR Planning and Administration	POTS Division Personnel	7,340
MEPR Other Readiness Planning	POTS Division Personnel	6,885
Sub-Total		14,745
Logistics Readiness		
Inventory Management Activities	Inventory Manager	400
Care of Supplies in Storage	Materiel Branch Warehousemen	6,000
Rewarehousing Project	Materiel Branch Warehousemen	1,200
TOTAL		22,345
Percent of the Total Manpower Resources Consumed		38.3%

Fifty-nine percent of the manpower data collected in this study came from primary sources: data recorded in files and reports (Table 22). A total of 91.4 percent of the manpower data was from primary and secondary sources. This high percentage of data from the two best sources available lends significant credibility to the data in the study.

Medical readiness activities cost Tripler Army Medical Center $15,638.69 in supplies and equipment needed to support the readiness programs (Table 24). This was a very small percentage of the total Command Operating Budget. The $8,311.25 spent for equipment for the Emergency Medical Team represents 65 percent of the total expenditures.

The cost associated with medical readiness activities must include the "opportunity cost" associated with the MCCUs forfeited because of personnel deployments. There were 433 outpatients that could not be scheduled for appointments, because of physician deployments. This decrease in the number of patients that could be seen at TAMC resulted in the loss of approximately 130 MCCUs during the fiscal year and the resultant forfeiture of nearly $20,408.56 in supply money. Although beyond the scope of this study, it is highly likely that a certain percentage of these 433 outpatient appointments that potentially could not be scheduled, because of physician deployments, resulted in an added expense to the Department of Defense. This expense resulted from individuals seeking medical care in the civilian community and filing a Civilian Health and Medical Program for the Uniformed Services claim for reimbursement.

During Fiscal Year 1987 Tripler Army Medical Center reported in the Medical Expense and Performance Report a total of 14,885 man-hours and $2902 consumed in medical readiness activities. As reflected in Table 24, these data understated the medical readiness expenditure by 39,559.25 man-hours (73 percent) and $12,736.69 (81 percent).

This tremendous, previously unsubstantiated, investment in medical readiness training has a significant impact on the ability of Tripler Army Medical Center to achieve a high level of productivity. Using the Department of the Army standard of 167.5 man-hours of available man-hours per month, the 54,444.5 man-

hours invested in medical readiness programs during FY 1987 equates to approximately 29 man-years or full-time equivalents.[17] In other words, if there were no medical readiness programs, Tripler would have the equivalent of 29 additional people available to provide patient care.

Table 23

Medical Readiness Programs Total Supply Costs

Program	Man-Hours Primary	Secondary	Tertiary	Quaternary	Total
Readiness Planning and Administration					
Planning and Administration	$1016.00	0	0	0	$1016.00
Other Readiness Planning Activities	$1886.00	0	0	0	$1886.00
Sub-Total	$2902.00				
Readiness Exercises					
Emergency Medical Team	$8311.25	0	0	0	$8311.25
Readiness Training					
SQT Program	0	$ 391	0	0	$ 391.00
CTT Program	0	$ 100	0	0	$ 100.00
Advanced Trauma Life Support	$1396.85	$ 35	0	0	$1431.85
Psychiatry Field Training Exercise	0	$ 700	0	0	$ 700.00
Medical Proficiency Training	$ 577.05	0	0	0	$ 577.05
Sub-Total	$1973.90	$1226	0	0	$3199.90
Grand Total	**$13186.69**	**$2452**	**$0**	**$0**	**$15638.69**
Percentage	80.7%	19.3%			

Table 24

Comparison Between Study Data and MEPR Data

Data Source	Man-Hours	Cost
Study Data	54,638.69	$15,638.69
Medical Expense and Performance Report Data	14,885.25	$ 2,903.00
Net Difference	39,559.25	$12,736.69
Percent Difference	72%	81%

In this era of shrinking resources it is imperative the that Army Medical Department improve on its ability to provide the U.S. Congress with an accurate accounting of the cost of medical readiness activities. Because these activities have a negative impact on the overall productivity they cost the Medical Center in three ways: manpower, dollars, and lost MCCUs. During Fiscal Year 1987 the cost at Tripler Army Medical Center was: 29 man-years, $15,638.69, and 130 MCCUs.

Appendix A

Medical Readiness Activities

1. Readiness Planning and Administration.

a. Planning for individual or group deployment requirements.(security clearances, immunizations, preparation of orders, transportation coordination, deployment briefings, ID tags, Geneva ID tags, special clothing, powers of attorney and will, etc.)

b. Scheduling, preparing and coordinating medical readiness exercises.

c. Developing contingency plans like the National Disaster Medical System Plan.

d. Maintenance of the Alert Notification Roster.

2. Readiness Exercises.

a. Contingency operation plan exercises.

b. Alert notification and recall exercises.

c. Reserve unit integration exercises.

3. Readiness Training.

a. Common Task Training.

b. Skill Qualification Training.

c. EFMB Training.

d. Professional Officer Filler System (PROFIS) Training.

4. Group or individual deployments.

a. PROFIS deployment.

b. POR Qualification.

c. Special Missions.

5. Readiness Physical Training (PT). Organized PT, scheduled and carried out during the normal duty hours taking personnel away from their normal work center duties.

Appendix B

Interview Questionnaire

SQT Training

1. Did you conduct SQT training within your department?

   _____ Yes _____ No

2. If there was SQT training conducted:

   a. When were the classes conducted?

      i. _____ Duty hours _____ After duty hours

         _____ Both (% of Each _____ Duty _____ Non-duty)

      ii. Training dates?

   b. Were sign in rosters completed to record attendees?

      _____ Yes _____ No

   c. If there were rosters, are they still available?

      _____ Yes _____ No

   d. Is there a list of instructors?

   e. How much time did the instructors spend in preparation?

      i. Duty time?

      ii. Non-duty time?

3. If there are no records available, can the individuals involved estimate the number of attendees and the amount of instructor preparation time required to support the program?

CTT TRAINING

1. Did you conduct CTT training within your department?

   _____ Yes _____ No

2. If there was CTT training conducted:

   a. When were the classes conducted?

      i. _____ Duty hours _____ After duty hours

         _____ Both (% of Each _____ Duty _____ Non-duty)

      ii. Training dates?

   b. Were sign in rosters completed to record attendees?

      _____ Yes _____ No

   c. If there were rosters, are they still available?

      _____ Yes _____ No

   d. Is there a list of instructors?

   e. How much time did the instructors spend in preparation?

      i. Duty time?

      ii. Non-duty time?

3. Source of the information?

   _____ Records from the file.

   _____ Estimate from the individuals themselves.

   _____ Estimate by one individual who supervised the effort.

   _____ Other: (Explain)

PROFIS FILLER PERSONNEL

1. Did your department provide PROFIS filler personal in FY 87?

_____ Yes _____ No (If no, skip the rest)

2. If yes, who?

3. Is there a policy concerning the amount of duty time PROFIS personnel will be granted to prepare for deployment?

_____ Formal _____ Informal

4. How much time did personnel (per person) in FY 87?

FIELD TRAINING EXERCISES

1. Planning.

   a. Who planned your last field training exercise?

   b. How many hours did they spend in planning the exercise?

      _____ Duty Time

      _____ Non-Duty Time

   c. How did you arrive at the number provided above?

      _____ Had a record of the time spent in the file.

      _____ Asked the individuals to estimate.

      _____ Estimated myself.

      _____ Other. (Explain)

2. Training Provided.

   a. Who provided the instructors for the exercise?

   b. How many instructors were there?

   c. How much time did the instructors use to prepare their material?

      _____ Duty Time

      _____ Non-Duty Time.

d. How many additional hours were spent by the instructors at the field site?

e. Source of the information?

_____ Records from the file.

_____ Estimate from the individuals themselves.

_____ Estimate by one individual who supervised the effort.

_____ Other: (Explain on back of the page)

3. Exercise participants.

a. How many people participated in the exercise exclusive of instructors?

b. How many hours of total participation were accumulated by non-instructors?

c. Source of the information?

_____ Records from the file.

_____ Estimate from the individuals themselves.

_____ Estimate by one individual who supervised the effort.

_____ Others.

Footnotes

1. Appendix F. Final Report of the Blue Ribbon Panel on Sizing DOD Medical Treatment Facilities. 28 June 1985. p. 2.

2. Appenidx F. Final Report of the Blue Ribbon Panel on Sizing of DOD Medical Treatment Facilities. 28 June 1985. p. 2.

3. DOD Regulation 6010.13-M, p. 1-10.

4. Letter from BG Robert R. Jorgensen concerning the development of the Medical Readiness Accounts within the Medical Expense and Performance Report (MEPR) Structure, dated March 17, 1986.

5. MEPR Guidance Letter 87-2, concerning medical readiness, published by Headquarters, US Army Health Services Command, dated December 23, 1986.

6. Army Regulation 40-330, Appendix B, pg.23.
Medical Care Composite Unit (MCCU) Performance Factor.
MCCU = (10 x ADM) + (10 x LB) + OBD + (0.3 x OPV)
where: ADM = Number of Admissions
LB = Number of Live Births
OBD = Number of Occupied Bed Days
OPV = Number of Outpatient Visits

7. John M. Lyons, "Cost Accounting: Problem and Research Related to Cost Definitions and Collection of Data," New Directions for Institutional Research 17 (1978) 1.

8. Lawrence Kahn, Patricia Wirth, and Gerald T. Perkoff, "The Cost of a Primary Care Teaching Program in a Prepaid Group Practice," Medical Care 16 (1978): 61.

9. Meredith A. Gonyea, "Program Analysis and Construction," New Directions for Institutional Research, 17 (1978) 71.

10. Letter concerning Army Availability Factors from the U.S. Army Manpower Requirements and Documentation Agency, Fort Belvoir, Virginia, dated October 18, 1985.

11. Interview with Mrs. Wanda Miller on August 19, 1987.

12. Chapter 1, paragraph 1-1. Army Regulation 350-37, p. 3.

13. Chapter 4, paragraph 4-1, Army Regulation 350-37, p. 5

14. Chapter 2, paragraph 2-1, Army Regulation 350-37, p. 4.

15. Letter concerning Army Availablity Factors dated October 18, 1985.